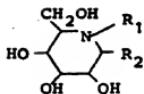


Patent Claims

1. Compounds of the formula I



I

in which

R_1 represents an optionally substituted straight-chain, branched or cyclic saturated or unsaturated aliphatic hydrocarbon radical or an optionally substituted aromatic or heterocyclic radical and
 R_2 denotes H , OH , alkoxy, amino, monoalkylamino and dialkylamino, $-\text{SO}_3\text{H}$ or $-\text{CN}$.

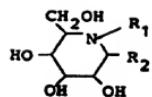
2. Compounds according to Claim 1, in which

R_1 denotes an optionally substituted alkyl radical with 1 to 30, preferably 1 to 18, C atoms, an optionally substituted alkenyl radical with 2 to 6 C atoms, an optionally substituted carbocyclic radical with 3 to 7 C atoms, an optionally substituted phenyl, naphthyl or benzyl radical or an optionally substituted 5-membered or 6-membered heterocyclic radical with preferably 1 to 3 identical or different hetero-atoms and
 R_2 denotes H , OH , alkoxy with 1 to 4 C atoms, monoalkylamino and dialkylamino with 1 to 4 C atoms per alkyl radical, $-\text{SO}_3\text{H}$ or $-\text{CN}$.

3. Compounds according to Claims 1 and 2, in which R_2 is H , $-\text{OH}$ or $-\text{SO}_3\text{H}$.

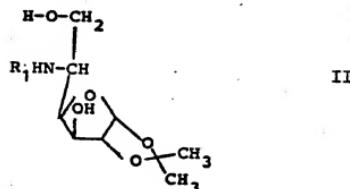
4. N-Methyl-1-desoxynojirimycin.

5. Process for the preparation of compounds of the formula I



in which

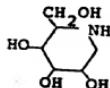
R_1 and R_2 have the meaning indicated above,
characterised in that compounds of the formula II



in which

R_1 has the meaning indicated above,
is subjected to acid hydrolysis in order to remove the isopropylidene protective group, and the compounds of the formula II
in which $\text{R}_3 = -\text{OH}$ are isolated as such or optionally in the
form of their derivatives after reaction with sulphurous acid,
hydrocyanic acid, alcohols, monoalkylamines or dialkylamines
or reaction with hydrogen donor reducing agents.

6. Process for the preparation of compounds of the formula I, in which R_1 has the meaning indicated above and R_2 represents hydrogen, characterised in that 1-desoxynojirimycin of the formula III



a) is reacted with carbonyl compounds of the formula IV



IV

in which

R_3 and R_4 either denote hydrogen or have the meaning indicated above for R_1 or are members of an alicyclic or heterocyclic ring,

in the presence of a hydrogen donor reducing agent, or

b) are reacted with reactive alkylating agents of the formula VII



VII

in which

R_1 has the meaning indicated above and

Z represents an easily eliminated group which is customary in alkylating agents,

and the mixtures are worked up in the customary manner.

7. Medicaments, characterised in that they contain a compound according to Claims 1 to 3 and, if appropriate, pharmaceutically suitable additives.

8. Process for the preparation of a medicament according to Claim 7, characterised in that a compound according to Claim 1 is formulated appropriately using pharmaceutically suitable additives.

9. Process for influencing the carbohydrate metabolism, characterised in that a compound according to Claims 1 to 3 is administered to humans or animals.

10. Use of a compound according to Claims 1 to 3 in the treatment of adiposity, diabetes and/or hyperlipaemia.

11. Animal feedstuffs, characterised in that they contain a compound according to Claims 1 to 3.

12. Use of a compound according to Claims 1 to 3 for the nutrition of animals.
13. Process for avoiding undesired deposition of fat, and for achieving increased formation of meat, and for better feed utilisation in animals, characterised in that compounds according to Claims 1 to 3 are administered to animals.